CHAPTER 7

AERONAUTICAL EQUIPMENT LOGS, RECORDS, AND REPORTS

Chapter Objective: *Upon completion of this chapter, you should have the knowledge to identify the purpose of the Aeronautical Equipment Service Record (AESR), and recognize the forms used in the AESR. You should be able to identify the importance of the Navy Aircraft Engine Management System (AEMS), and recognize the reports required by the AEMS.*

In conjunction with aircraft logs, records, and reports, aircraft maintenance activities are required to maintain various associated logs and records on aeronautical equipment. The Aeronautical Equipment Service Record (AESR) is the log used to maintain records on aeronautical equipment that are an integral part of the aircraft. The AESR is a part of the aircraft logbook, and it is maintained in much the same manner as the aircraft logbook. AESR logs and records are used to prepare various reports for submission to higher authority. Since aircraft engines are the most expensive single item of aeronautical equipment supported in the naval air logistics system, this section of the TRAMAN also provides you with information concerning inventory management and reporting of engines. The system designed to provide this data is called the *Navy Aircraft Engine Management System* (AEMS).

AERONAUTICAL EQUIPMENT SERVICE RECORD (AESR)

The AESR is a loose-leaf log contained within a separate cover that can be inserted in the aircraft logbook binder, or it may stand alone, Special care must be taken when removing the AESR from the aircraft logbook so that you do not lose any of the separate pages. A two-prong fastener is used to bind the record together when it is transferred, shipped, or when it stands alone. Staples should NOT be used. Figure 7-1 shows the cover of an AESR. You should refer to the latest edition of OPNAVINST 4790.2 for AESR construction and form sequence procedures.

APPLICATION

An AESR is required for each of the specific equipments listed below.

1. Aircraft power plant
2. Auxiliary power unit (APU)
3. Airborne gun pods
4. Low-level escape system
5. Propeller assembly
6. In-flight refueling store/package
7. AN/ALQ-99 pod
8. Aeronautical Expeditionary Airfield M-11, M-22, M-23, and V-1 systems
9. Gas Turbine Power Plant, 7LM 1500 PB-104
10. Engine test cell/stand
11. MK-105 magnetic minesweeping gear
12. Support equipment gas turbine engines

DISPOSITION

The procedures discussed in this section should be followed when disposing of records for aeronautical equipment deleted from Navy inventories.

Destroyed equipment. Records for destroyed equipment are disposed of locally after any necessary investigation and preparation of required reports, provided that the equipment does not fall into either of the categories discussed below.

Sale or transfer. When the equipment is sold or transferred to other than Navy custody,

AERONAUTICAL EQUIPMENT SERVICE RECORD

NOMENCLATURE OF EQUIPMENT			REPLACEMENT	
			Interval	Due
TYPE		MODEL	SER. NO. *(Hub if prop.)*	

INSTALLED ON--

MODEL	BUNO/SERIAL NO.	DATE	BY *(Activity)*
	SAMPLE		

CURRENT ENGINE OR PROPELLER POSITION NO.

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OPNAV 4790/29 (Rev. 1-84)   S/N 0107-L4-047-9145

NOTE: DO NOT ROLL OR BEND. When removed from the log book for separate shipment, this record must be secured with a suitable fastener (e.g., a metal file fastener) at the points indicated. DO NOT USE STAPLES.

Figure 7-1.—Aeronautical Equipment Service Record (AESR) (Cover).

the AESR accompanies the equipment unless otherwise directed by proper authority. Any classified information is removed or cleared for release through appropriate channels before sale or transfer.

Special categories. A special category provides for the disposition of records for experimental equipment, records considered to be of historical value, and records for equipments that have been lost in combat or involved in accidents resulting in death, missing in action, serious injury, or substantial damage to other than government property. These records are retained for 1 year by the operating activity and then forwarded to the National Records Center.

ORIGIN

The AESR is initiated by the activity originally accepting the equipment for the Navy and is subsequently maintained by the activity having custody of the equipment at all times. When equipment is installed as part of the aircraft, the AESR is maintained concurrently with and becomes a part of the aircraft logbook.

FORMS

The AESR is maintained similarly to the aircraft logbook. Since it is in loose-leaf form, the full identification data and serial number for each piece of equipment is inserted on each page. This ensures that each page can be identified if it is removed for entries, or for any other reason.

Signatures required in the AESR are the same as those previously listed for the aircraft logbook in chapter 6. All signatures are handwritten in black ink. Rubber stamps are not authorized. Signatures are not required when new records are initiated or when old records are consolidated.

Pages or forms, other than those described in the following paragraphs, are not inserted, stapled, or attached to the AESR. Additional data, for which there is not a designated place in the logbook, and a copy of the most recent engine setup or test record are placed in the manilla envelope in the back of the AESR. Superseded forms are closed out with the statement "No further entries this page." and a new form is initiated. The superseded form remains in the AESR.

A brief description of the forms used in the AESR is contained in the following paragraphs.

Aeronautical Equipment Service Record (Cover) (OPNAV 4790/29)

The Aeronautical Equipment Service Record (fig. 7-1) is the cover for the AESR. The information on the front cover is entered as shown in the figure by the activity initiating the record. Subsequent entries are made by activities using or operating the equipment. The inside of the AESR cover contains general instructions for the maintenance of the record.

The operating interval is the authorized time between overhauls for the particular equipment. When the AESR is used for engines, a locally produced replacement interval/due sticker is placed over this block. The data required for the replacement interval is obtained by review of the replacement interval data block on each assembly service record (ASR) and module service record (MSR). The lowest time recorded is written as the replacement interval on the AESR. The replacement due is completed by adding the lowest interval time to the engine time. Entries are made in pencil to allow for component changes at repair or rework activities.

The block titled' 'Engine or Propeller Position No." is used to indicate the engine or propeller position number (1, 2, 3, or 4) as installed on the aircraft. This position indicator aids in placing associated accessory and other supplemental records in the correct equipment record.

Equipment Operating Record (OPNAV 4790/31A)

The Equipment Operating Record (fig. 7-2) is intended for use with all aeronautical equipment

EQUIPMENT OPERATING RECORD
Entry required at end of month and upon transfer

1. EQUIPMENT											2. T / M / S	3. SERIAL NUMBER
4. MONTH AND YEAR	5. OPERATING HRS		6. MONITORING SYSTEM DATA (e.g., TSR, STARTS, COUNTS, ROUNDS)								7.	8.
	a. THIS MONTH	b. ACCUM	a.		b.		c.		d.		ACTIVITY	REMARKS
			(1) THIS MONTH	(2) ACCUM	(1) THIS MONTH	(2) ACCUM	(1) THIS MONTH	(2) ACCUM	(1) THIS MONTH	(2) ACCUM		
					SAMPLE							

OPNAV 4790/31A (REV. 1-84)   S/N 0107-LF-047-9157   PERMANENT RECORD

Figure 7-2.—Equipment Operating Record.

requiring the monthly compilation of significant operating data. Reporting custodians ensure that operating or monitoring system data is entered on this form at a monthly interval and upon transfer of the equipment.

The Equipment Operating Record provides columns for logging operating hours or monitoring system data, as applicable. Uncaptioned columns are provided for monitoring system data and are labeled as required; for example, starts, rounds fired, low cycle fatigue (LCF), and meter reading. If equipment is monitored by time since new (TSN) and time since rework (TSR), the first column under monitoring system data is labeled TSR. The accumulative column under operating hours shows the TSN hours. A remarks column has been provided for logging special information, as appropriate. Operating hours are obtained from record type (RECTYP) 7B of the naval aircraft flight record.

Inspection Record (OPNAV 4790/22A)

The Inspection Record shown in figure 6-4 of chapter 6 is one of the forms that is common to both the aircraft logbook and the AESR. (NOTE: As you read portions of this chapter, you will be referred to some of the figures shown in chapter 6 because they are used in both the aircraft logbook and the AESR.) The maintenance of the form is essentially the same for both records. The heading blocks on each form should be filled in to identify the type of inspection (periodic or conditional), and the equipment name, model, and serial number should be entered on each form. Types of actions that require an Inspection Record entry are described below.

● This form reflects all inspections on equipment, including those in aircraft phased maintenance requirements cards, with the following exceptions—preflight, postflight, turnaround, daily, preoperational, and oil sampling.

● All major engine inspections, calendar, phase, special, and conditional inspections (except fluid sampling, engine wash, or servicing) require AESR entries by the activity performing the inspection. Phase, calendar, and major engine inspections are maintained on one page. Special and conditional inspections are maintained as separate pages within this section of the AESR.

● If an inspection requires nondestructive inspection (NDI) or disassembly and reassembly, the inspection is logged on an inspection record form titled "SPECIAL" on other equipment having an AESR.

● A entry is made in the reference column for each inspection that indicates the NAVAIR or major command directive that requires the applicable inspection.

● Conditional inspections are unscheduled events required as a result of an overlimit condition, or as a result of circumstances or events which create an administrative requirement for an inspection, such as a hot start, overtemp, and acceptance or transfer of an aircraft. They require an Inspection Record entry.

● Acceptance and transfer inspections on uninstalled equipment are not required.

During repair or rework, the intermediate maintenance activity (IMA) or the depot (D)-level maintenance activity screens this section of the AESR. The old inspection record pages for scheduled maintenance will be removed and a new record containing the data necessary for determining when the next inspection is due will be initiated. The Conditional Inspection pages are screened for items of historical or maintenance value and transcribed to a new page. A minimum of 2 years data will be maintained at all times on the Conditional Inspection page.

Repair/Rework Record (OPNAV 4790/23A)

The Repair/Rework Record is a permanent part of the AESR. It contains a complete record of all repair, reconditioning, SDLM, conversion, modification, and modernization performed on the equipment by any IMA or D-level maintenance activity. In all cases where an item requires an AESR, the AESR will accompany the equipment through the maintenance action required and will be updated by the activity accomplishing that action. This form is the same one that is shown in figure 6-5 of chapter 6.

Technical Directives Form (OPNAV 4790/24A)

The Technical Directives Form is used for the recording of technical directives in the AESR. This

form is the same one that is used in the aircraft logbook. (See chapter 6, fig. 6-6.) Separate pages are used for each type of directive, and all applicable directives are recorded. Lists 02 and 04 for engines may be available for your use; however, they are NOT an authorized part of the engine AESR.

Changes and bulletins concerning equipment, other than engines, present no special problems in recording because the numerical quantity of these directives is relatively small. Power plant changes and bulletins, however, are issued in greater numbers. Therefore, they require careful screening to ensure that the AESR reflects the actual configuration of the equipment.

Definite rules and procedures are required to ensure that the AESR contains a record of the applicable directives and, at the same time, eliminates the recording of unnecessary material.

To provide for uniformity throughout the system, the following procedures apply for all equipment: All changes and bulletins, including revisions, that direct a material change or modification of the particular equipment are recorded in this section of the AESR. All technical directives are logged in numerical sequence, except on pages titled "Revisions." These are logged in the order that they are received. All activities account for all applicable bulletins or production equivalents by number. Applicable status codes and descriptions are used. Technical directives that affect a component that has an SRC card, EHR card, ASR, or MSR are also recorded in the technical directives part of that card or record. In this instance, the technical directive identification is entered, and a notation to see the applicable SRC, EHR, ASR, or MSR is entered in the Title/Remarks column.

Other entries are recorded in the same way as those in the TD section of the aircraft logbook.

Miscellaneous/History (OPNAV 4790/25A)

When used in the AESR, the Miscellaneous/History Form (chapter 6, fig. 6-7) is used for recording pertinent information for which no other place has been provided. For example, special test data, abnormal characteristics of equipment, significant damage and/or repair, authorization for extension of operating intervals, and Naval Oil Analysis Program entries are made on this form. When equipment is exposed to large quantities of salt water, fire-extinguishing agents, or other corrosive material, an entry is made on the Miscellaneous/History Form to include a

description of the decontamination and approximate time between exposure and completion of decontamination. All entries on this form require an authorized signature and the name of the activity.

IMA and depot activities screen this form before discarding it and initiating a new form. When the specific information is of permanent value, this information is transcribed onto the new form and retained in the AESR. A minimum of 2 years of data is maintained at all times.

To aid the IMA and depot activities in determining repair or rework requirements of equipment following rejection, the activity that rejects the equipment MUST completely document the reason for and nature of the rejection on the Miscellaneous/History Form. For example, an entry such as overtemp is not enough. Information must be given as to the degree of overtemp, the length of overtemp, and the circumstances under which it occurred, such as at start, in flight, during shutdown, or during ground runup. Corrective measures that were taken must also be listed.

If there is a change in the authorized inspection interval, the following entry is required: Effective (date) was placed on (specified interval) in accordance with (authority); next inspection due (date or hours). A change in the inspection induction date or hourly sequence requires that the following entry be made: Effective (date) inspection induction date (or hours) was rescheduled from (old date or hours) to (new date or hours) as authorized by (reference):

Preservation/Depreservation Record (OPNAV 4790/136A)

The Preservation/Depreservation Record in the AESR contains a record of preservation, representation, and depreservation. It is maintained in the same way that it is maintained in the aircraft logbook (chapter 6, fig. 6-8). If the equipment (engine propellers, ejection seats, or auxiliary power units [APUs]) is installed in the aircraft and the aircraft is preserved but the preservation requirement is not applied to the specific equipment, then no preservation entry is made to the equipment AESR.

Installed Explosives Devices Form (OPNAV 4790/26A)

The Installed Explosives Devices Form contains a record of all explosive safety devices

installed. It is maintained in the same way in the AESR as it is in the aircraft logbook. (See fig. 6-9, chapter 6.)

Inventory Record (OPNAV 4790/27A)

The Inventory Record Form is common to both the aircraft logbook and the AESR (fig. 6-10, chapter 6). It is used to maintain a current inventory of all equipment or components requiring an SRC, EHR, ASR, or MSR. Sound maintenance practices and flight safety considerations dictate those items, other than mandatory, that should be recorded on this form. **Components, assemblies, or modules properly associated with equipment requiring an AESR are recorded in this section and NOT with airframe components in the aircraft logbook.**
At the time of repair by the IMA or rework by the depot activity, all old Inventory Record Forms are removed and new forms inserted in the AESR. All pertinent data for those items that have been installed by the equipment custodian during the previous service period and that are not scheduled for removal during repair or rework are transcribed to the new form(s) to maintain proper maintenance continuity. SRCs, EHRs, ASRs, or MSRs installed during repair or rework are also listed on this new form.

Scheduled Removal Component (SRC) Card (OPNAV 4790/28A)

Maintenance history, installation, and usage data is recorded on the SRC card. (See chapter 6, figs. 6-14 and 6-15). It is maintained as part of the AESR as long as the component is installed. When the component is removed from the equipment, the card accompanies the component. It is very important that maintenance history continuity is maintained. The same procedures used to maintain or adjust the SRC card in the aircraft logbook should be used to maintain or adjust the SRC card in the AESR.

Equipment History Record (EHR) Card (OPNAV 4790/113)

The EHR provides a method for monitoring specific maintenance data on designated

Figure 7-3.—Module Service Record (page 1).

aeronautical components and equipment that do not qualify as SRC. An individual card for each EHR-serialized item is maintained as part of the AESR while the component is installed. When the component is removed from the equipment, the EHR card is attached to and accompanies the component to its final disposition. This record is maintained in the AESR in the same way as it is maintained in the aircraft logbook (chapter 6, figs. 6-16 and 6-17).

Assembly Service Record (ASR) (OPNAV 4790/106A)

The latest edition of NAVAIRINST 4790.3 establishes the policy and responsibilities for the planned removal/replacement of selective assemblies designated to use the ASR. The ASR is used in the AESR to provide data tracking on assemblies if the assembly has a rework/overhaul life limit, and its subassemblies are either D-level removal only; or, if removed by O- and I-levels, its subassemblies are discarded, The same procedures used to maintain or adjust the ASR in the aircraft logbook should be used to maintain

or adjust the ASR in the AESR. (See chapter 6, figs. 6-18 and 6-19).

Module Service Record (MSR) (OPNAV 4790/135)

Modular engine design allows I-level maintenance activities to remove and replace interchangeable modules with ready-for-issue (RFI) spares. The removed modules are either repaired at an IMA or forwarded to depot maintenance for overhaul. This capability requires a system by which these modules, the life limits of the assemblies and components within them, and other maintenance data may be recorded and maintained. The MSR (figs. 7-3, 7-4, 7-5, and 7-6) provides this capability, and it is used for all modular engines; for example, T56, T76, T400, T700, and F404.

The activity that accepts a module forwards a copy of the MSR to the NAVAVNMAINTOFF central repository. MSR initiation for modules installed on aeronautical engines as part of a DOD contract is the responsibility of the activity that accepts the engines for the Navy. When these

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Figure 7-4.—Module Service Record (page 2).

SECTION VI - REPAIR / REWORK			
A. DATE	B. ACTIVITY	C. DESCRIPTION	D. SIGNATURE
		SAMPLE	

SECTION VII - INSPECTION RECORD				
A. TYPE AND DESCRIPTION OF INSPECTION	B. REFERENCE	C. DATE COMPLETED	D. ACTIVITY	E. SIGNATURE

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Figure 7-5.—Module Service Record (page 3).

SECTION VIII - MISCELLANEOUS / HISTORY	
A. DATE	B. REMARKS
	SAMPLE

SECTION IX - EXCEEDANCE			
A. EXCEEDANCE	B. LEVEL	C. REMARKS	D. SIGNATURE

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Figure 7-6.—Module Service Record (page 4).

modules are delivered to the Navy at the contractor's plant, the cognizant Navy representative is considered to be the original accepting activity.

The MSR accompanies the module at all times. When the module is installed as a part of a propulsion system, the MSR is maintained concurrently with, and becomes a part of, the propulsion system AESR. When the module is uninstalled, a fastener should be used to bind the record together when the module is transferred or shipped as a separate item, DO NOT STAPLE!

Upon completion of repair or rework, a copy of the MSR reflecting the current status of the module is forwarded to the central repository. The MSR must be securely attached to the module being returned to the supply system or inserted in the propulsion system AESR, as appropriate.

When an MSR becomes damaged or mutilated, the activity having current custody initiates a new record. All information is transcribed to the new record. Entries are typed or plainly printed in black ink, except entries in the replacement block, which are made in pencil. When a record contains no space for additional entries, a new record is prepared, and both records accompany the module until the records are consolidated at repair or rework. **MSR consolidation will only be done at I-or D-level activities.**

In the top left corner of the first page of each MSR, the type of MSR is indicated; for example, fan, turbine, or afterburner.

In the replacement block (top right corner of the first page), the noun name of the component or assembly that will require the module to be removed from the propulsion system because of its life cycle limit is entered. The due block is computed by adding the component or assembly interval time to the module time minus any hours or counts on the component or assembly at installation. These entries are made in pencil.

The MSR has 10 sections for recording data as listed below.

Section I—Identification Data

Section II—Module Composition

Section III—Installation Data

Section IV—Removal Data

Section V—Technical Directives

Section VI—Identification Data

Section VII—Repair/Rework

Section VIII—Inspection Record

Section IX—Miscellaneous/History

Section X—Exceedances

For detailed descriptions and instructions for each section of the MSR, you should refer to the latest edition of OPNAVINST 4790.2.

ENGINE COMPOSITION TRACKING (ECOMTRAK)

This system tracks the operating time/cycle counts of selected engine components. A similar system is used to track selected aircraft components, which is called Aircraft Composition Tracking (ACOMTRAK). These two systems can be easily confused by the AZ; therefore, you must remember that ECOMTRAK deals primarily with life-limited engine components.

The ECOMTRAK system can supply reports that specify the time/cycle counts remaining on each tracked component before it must be inspected or removed and replaced. Using usage rates derived from experiments and tests, work loads for maintenance and rework facilities can be forecast for 5 years. In addition, long-range requirements for new and reworked components can be developed. The cognizant field activity (CFA) or, in some cases, the assistant program manager for logistics (APML) for each engine in the system is responsible for maintaining and updating the ECOMTRAK data base. Each CFA can presently provide management information on TF30, J60, J85, T700, TF34, J52, TF41, F402, F404, T64, T76, T58, T56, T400 and F110 engines. Designated fleet units and others may also obtain such data directly. For further information concerning development of this direct data access capability, contact NAVAVN-MAINTOFF.

AIRCRAFT ENGINE MANAGEMENT SYSTEM

Aircraft engines have to be accounted for and reported on regularly in much the same fashion as aircraft. They are the most expensive single item of support in the naval air logistics system, both in terms of unit cost and total dollar expenditure. The sizeable investment in aircraft engines and the continually rising cost of each engine model require close management control to shorten the out-of-service time and also to reduce the quantity of spare engines being purchased. Until 1945, accounting for aircraft engines was maintained by serial number on a manual (as opposed to machine accounting) basis by individual engine

transaction reports. These reports were forwarded to the Bureau of Aeronautics (BUAER) by fleet and shore activities as changes occurred.

After World War II, with the reduction in civilian personnel ceilings, it became necessary to reduce the manual workload required in engine accounting. This was accomplished by requiring fleet and shore activities to submit monthly reports to the major fleet aircraft commanders, where the reports were summarized and sent to BUAER. Only spare engines were reported, and all data was processed manually. To overcome the deficiencies of this system, a new system was devised in 1955 that used punch cards and electric accounting machines. This system required that all engines be reported by serial number at the end of each month, indicating the various changes in status that had occurred for each engine during the month. On 1 July 1961, this system was converted to daily transaction reporting and automatic data processing to provide more timely aircraft engine management data and reduce the workload at reporting activities.

Various Navy-wide aircraft engine management reports are developed by the Naval Air Systems Command (NAVAIRSYSCOM) on automatic data processing equipment from a master aircraft engine record file maintained on magnetic tape. This master file, which contains the status, custody, and performance history of each serially numbered aircraft engine in the active Navy engine inventory, is updated daily by transaction reports forwarded by controlling custodians and Naval Air Systems Command Fleet Support (NAVAIRSYSCOMFS) custodians as changes occur in engine status or custody. Quarterly reports are also forwarded on installed engines, indicating the hours the engines have flown since the last overhaul, or since new if no overhauls have been performed. This later data is required for the preparation of failure rate reports used in the development of overhaul schedules,

The latest edition of NAVAIRINST 13700.15 prescribes reporting procedures for the Navy Aircraft Engine Management System (AEMS). These procedures are directed primarily to controlling custodians and Naval Air Systems Command Fleet Support custodians; therefore, controlling custodians issue instructions concerning engine management in their areas of control. The procedures discussed in the following sections are general in nature and may not contain the latest detailed information needed in preparing engine management reports. The latest instructions, directives, etc., issued by the appropriate controlling custodian must be followed when preparing engine management reports. These sections are intended to familiarize you, the AZ, with engine management and its application at the operating squadron level.

ENGINE MANAGEMENT CODES

Each controlling custodian maintains a master file of engines assigned to their custody. This master file is updated daily by engine transaction reports (ETRs) and quarterly by end-of-quarter (EOQ) reports of installed engines. These reports are forwarded by the reporting custodians. The data required by the Naval Air Systems Command Headquarters is extracted from these reports and forwarded by the controlling custodians. Controlling custodians and the Naval Air Systems Command use automatic data processing equipment in processing engine data; therefore, certain information must be reported in code form for automatic data processing.

Custodian codes are used for engine management purposes to identify the controlling custodian or Naval Air Systems Command Fleet Support activity having control of an engine. Custodian codes are identical to the activities' unit identification codes (UICs). UICs are also used to identify reporting custodians. All activities holding physical custody of engines are engine reporting custodians. UICs for reporting custodians are listed in the *Navy Comptrollers Manual,* volume 2, chapter 5.

Status codes are two-digit numbers that describe the condition of an engine, the purpose for which an engine is being used, or the stage of progress that an unserviceable engine or serviceable engine has reached in the maintenance cycle.

STATUS codes are divided into the following series:

11 series—Installed Engine/Propulsion System Category

13 series—Installed Module Category

21 series—Serviceable Uninstalled RFI Spare Engine/Propulsion System Module Category

23 series—Serviceable Uninstalled RFI Engines/Propulsion System/Modules

24 series—Serviceable Uninstalled Non-RFI Engine/Propulsion System/Module Category

31 series—Unserviceable Engine/Propulsion System/Module Category

32 series—Unserviceable Engine/Propulsion System/Module In Transit Category

33 series—Uninstalled Unserviceable Engine/ Propulsion System/Module

34 series—Uninstalled Unserviceable Engine/ Propulsion System/Module For Overhaul at NAVAVNDEPOT or Commercial Rework

36 series—Unserviceable Engine/Propulsion System/Module For Rework/Repair at NAV-AVNDEPOT or Commercial Repair Activity

37 and 38 series—Engine/Propulsion System/ Module Monetary Constraints or Awaiting Engineering Resolution

40 series—Engine/Propulsion System/Module Test Cell Correlation Category

41 and 42 series—Engine/Propulsion System/ Module Disposition and Excess Category

46 and 47 series—Engine/Propulsion System/ Module Bailed or Loaned Category

48 series—Engine/Propulsion System/Module Naval Air Maintenance Training Group Category

49 series—Engine/Propulsion System/ Module-Strike Category

90 series—Modular Propulsion System Category

STAR codes are two-digit numeric codes used to describe or give reasons for transactions such as strikes, transfers, acquisitions, or removals of aircraft engines. They are also used-to identify end-of-quarter reports of hours flown and reports of completion of complete repairs, etc. A status code is often used without a STAR code, but a STAR code is never used without a status code. A STAR code amplifies or qualifies the status code.

STAR codes are divided into the following five series:

50 series—Acquisitions

60 series—Transfers and receipts

70 series—Removals

80 series—Strikes

90 series—Miscellaneous

The various STAR codes are explained in detail in NAVAIRINST 13700.15.

Data elements are used to identify the items of engine data submitted in the required reports. These data elements are used in all engine management reports to describe the items of information that are being transmitted. You should refer to NAVAIRINST 13700,15 for a listing and explanation of the data elements.

Some controlling custodians have assigned additional data elements for use by their reporting custodians. These data elements are used to furnish the controlling custodian additional required information. In COMNAVAIRLANT and COMNAVAIRPAC activities, data element 0 is used to report the transaction serial number. Certain of these data elements must be listed on every engine transaction report (ETR); others are used only in specified and seldom occurring transactions. The appropriate controlling custodians instruction concerning engine management explains the proper use of data elements.

RECORDS AND REPORTS

There is one record and two reports used in the aircraft engine management system. These reports are made either by naval message or on a form, depending upon the appropriate controlling custodian's instructions. Regardless of the method of reporting, all engine reporting custodians report approximately the same engine data.

The Aircraft Engine Record is a 5 x 8 record card designed to provide a standardized record for local management of aircraft engines. It is used in much the same way as the aircraft record A card is used in aircraft inventory reporting. One engine card is maintained on each assigned engine. Whenever reportable actions occur, an ETR is submitted, and certain items of information are

recorded on the Aircraft Engine Record card. An engine card is shown in figure 7-7.

For the most part, the card is self-explanatory. The blocks are numbered to correspond to items of information reported on ETRs.

An understanding of data elements and ETRs will clarify the entries made on the Aircraft Engine Record card.

Engine Transaction Report (ETR)

An ETR is used to advise the controlling custodian of actions concerning the use or status code changes of assigned engines. An ETR is normally submitted once each workday covering all transactions occurring since the previous report. Reports will be submitted not later than 2400 hours of the first working day following the date the action occurred. Should it become necessary to submit a late report, use the actual Julian date of action and indicate in the Remarks section that the report is late. Some situations that require the submission of an ETR are as follows:

● The installation of a serviceable, uninstalled engine

● The removal of an engine and retention as a serviceable uninstalled engine

● The removal of an engine as an unserviceable engine

● The receipt and transfer of both installed and uninstalled engines

● The striking of an engine from the Navy inventory

There are numerous other situations that require an ETR; however, those listed above are used most often.

The preparation of an ETR is a relatively simple (but important) task. NAVAIRINST 13700.15, as well as instructions issued by the controlling custodians, contain guidelines and examples that cover almost all anticipated engine transactions. These instructions also provide detailed information on status code and STAR code applications and required data elements. Refer to the matrices listed in figures 7-8 and 7-9 for more information on required data elements for specific status/STAR code combinations.

AIRCRAFT ENGINE RECORD											(SEE NAVAIRINST 13700.15)
NAVAIR 13700/3 (REV 4-89) S/N 0102-LF-008-5100										PREVIOUS ISSUES OF THIS FORM ARE OBSOLETE	
ENG/PSSN/MODULE SER NR (1)		ENG/PSSN/MODULE TYPE MODEL (4)		ENG/PSSN/MODULE SERIES/DASH (5)	REPORTING CUSTODIAN UIC (6)		ACFT MODEL (12)	ACFT BUNO/PSSN (13)		DEPLOYED TO LOCATION (16)	
0141483		TF41A		402D	B2037						

TRANSACTION SER NR (0)	STATUS/ STAR (2)	JULIAN DATE (3)	HOURS SINCE OVHL (6)	HOURS SINCE NEW (9)	REPT CUST UIC RECD/ FM TRF TO (10)	NEW CONT CUST UIC TRF TO (11)	POS NR (14)	RMVL DOWN (15)	OECA CONF (16)	BCM/ AWM INSP CODE (17)	JCN (19)	REMARKS (20)
0262	3361	8162	03374	04487	63042	00019						REC.
0263	36	8162	03374	04487		00019						ALLOCATION
0264	3693	8164	03374	04487		00019						IN WORK
0265	2391	8344	03374	04487		00019						COMP.
0266	2360	8347	03374	04487		00019						TRAN.

ENG/PSSN/MODULE SER NR (1)		ENG/PSSN/MODULE TYPE MODEL (4)		ENG/PSSN/MODULE SERIES/DASH (5)	REPORTING CUSTODIAN UIC (6)		ACFT MODEL (12)	ACFT BUNO/PSSN (13)		DEPLOYED TO LOCATION (16)	
0141483		TF41A		402D	B2037						

Figure 7-7.—Aircraft Engine Record card.

Figure 7-8.—Engine/Propulsion System Required Data Elements.

STATUS STAR CODE	CONTROLLING CUSTODIAN UIC	FLIGHT HOURS SINCE REWORK/OVHL	FLIGHT HOURS SINCE NEW	REPORTING CUSTODIAN	NEW CONTROLLING CUSTODIAN RECD FM/TRF TO	AIRCRAFT MODEL	AIRCRAFT BUNO	PROPULSION SYSTEM POSITION NUMBER	REMOVAL/DOWNGRADE TRF TO	QECA CONFIGURATION/REPAIR CODE	BCM/AWM/INSPECTION CODE	LOCATION CODE	JOB CONTROL NUMBER	REMARKS	SPECIFIC REMARKS PG 5&6 ENCL 2
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
11–NA			X			X	X	X						X	
11–50			X	X		X	X	X						X	X
11–51			X	X		X	X	X						X	X
11–52			X			X	X	X						X	X
11–60			X	X	X	X	X	X						X	X
11–61			X	X		X	X	X						X	
11–62			X	X		X	X	X						X	
11–63			X	X		X	X	X						X	
11–70			X	X		X	X	X						X	X
11–90			X			X	X	X						X	
11–99			X		X					X		X		X	X
21–NA			X							X				X	
21–50			X	X						X			X	X	X
21–51			X	X						X				X	X
21–52			X							X				X	X
21–60			X	X	X					X				X	X
21–61			X	X						X				X	
21–62			X	X						X				X	
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

DATA ELEMENTS
0–6 ARE REQUIRED
ON ALL ETR's.

0 – TRANSACTION SERIAL NUMBER
1 – MODULE SERIAL NUMBER
2 – STATUS-STAR CODE
3 – JULIAN DATE OF TRANSACTION
4 – MODULE TYPE/MODEL
5 – MODULE SERIES
6 – REPORTING CUSTODIAN (UIC)

STATUS STAR CODE	CONTROLLING CUSTODIAN UIC	FLIGHT HOURS SINCE REWORK/OVHL	FLIGHT HOURS SINCE NEW	REPORTING CUSTODIAN RECD FM/TRF TO	NEW CONTROLLING CUSTODIAN TRF TO	AIRCRAFT MODEL	AIRCRAFT BUNO	PROPULSION SYSTEM POSITION NUMBER	REMOVAL/DOWNGRADE/REPAIR CODE	QECA CONFIGURATION	BCM/AWM/INSPECTION CODE	LOCATION CODE	JOB CONTROL NUMBER	REMARKS	SPECIFIC REMARKS PG 5&6 ENCL 2
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
21-63			X	X						X				X	
21-74			X	X		X	X	X	X	X				X	X
21-91										X	X	X		X	X
21-95										X	X			X	X
21-96										X	X			X	
21-97									X	X	X			X	X
21-98									X	X	X			X	X
21-99			X		X					X		X		X	X
23-NA			X							X				X	
23-01			X											X	
23-50			X	X										X	X
23-51			X	X										X	X
23-52			X											X	X
23-60			X	X	X									X	X
23-61			X	X										X	X
23-62			X	X										X	
23-63			X	X										X	X
23-74			X			X	X	X	X	X				X	X
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

DATA ELEMENTS
0-6 ARE REQUIRED
ON ALL ETR's.

0 - TRANSACTION SERIAL NUMBER
1 - MODULE SERIAL NUMBER
2 - STATUS-STAR CODE
3 - JULIAN DATE OF TRANSACTION
4 - MODULE TYPE/MODEL
5 - MODULE SERIES
6 - REPORTING CUSTODIAN (UIC)

Figure 7-8.—Engine/Propulsion System Required Data Elements—Continued.

Figure 7-8.—Engine/Propulsion System Required Data Elements—Continued.

STATUS STAR CODE	CONTROLLING CUSTODIAN UIC (7)	FLIGHT HOURS SINCE REWORK/OVHL (8)	FLIGHT HOURS SINCE NEW (9)	REPORTING CUSTODIAN RECD FM/TRF TO (10)	NEW CONTROLLING CUSTODIAN TRF TO (11)	AIRCRAFT MODEL (12)	AIRCRAFT BUNO (13)	PROPULSION SYSTEM POSITION NUMBER (14)	REMOVAL/DOWNGRADE (15)	QECA CONFIGURATION/REPAIR CODE (16)	BCM/AWM/INSPECTION CODE (17)	LOCATION CODE (18)	JOB CONTROL NUMBER (19)	REMARKS (20)	SPECIFIC REMARKS PG 5&6 ENCL 2 (21)
23-91			X						X		X			X	
23-96			X											X	
23-97			X							X	X			X	
23-98			X						X		X			X	
24-NA			X			X	X	X	X	X				X	
24-51			X	X										X	X
24-52			X											X	X
24-60			X	X	X									X	X
24-61			X	X										X	
24-62			X	X										X	
24-63			X	X										X	X
24-74			X			X	X	X	X				X	X	X
24-75			X										X	X	X
24-92											X		X	X	X
24-93													X	X	
24-94														X	X
24-99			X		X					X		X		X	X
31-NA			X			X	X	X		X				X	

DATA ELEMENTS
0-6 ARE REQUIRED
ON ALL ETR's.

0 — TRANSACTION SERIAL NUMBER
1 — MODULE SERIAL NUMBER
2 — STATUS-STAR CODE
3 — JULIAN DATE OF TRANSACTION
4 — MODULE TYPE/MODEL
5 — MODULE SERIES
6 — REPORTING CUSTODIAN (UIC)

STATUS STAR CODE	CONTROLLING CUSTODIAN UIC	FLIGHT HOURS SINCE REWORK/OVHL	FLIGHT HOURS SINCE NEW	REPORTING CUSTODIAN RECD FM/TRF TO	NEW CONTROLLING CUSTODIAN TRF TO	AIRCRAFT MODEL	AIRCRAFT BUNO	PROPULSION SYSTEM POSITION NUMBER	REMOVAL/DOWNGRADE/REPAIR CODE	QECA CONFIGURATION CODE	BCM/AWM/INSPECTION CODE	LOCATION CODE	JOB CONTROL NUMBER	REMARKS	SPECIFIC REMARKS PG 5&6 ENCL 2
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
31-51			X	X										X	X
31-60			X	X	X									X	X
31-61			X	X										X	
31-62			X	X										X	
31-63			X	X										X	X
31-72			X						X		X			X	X
31-73			X			X	X	X	X					X	
31-74			X			X	X	X	X					X	X
31-99			X		X				X			X		X	X
32-60			X	X	X									X	X
33-51			X	X										X	X
33-51			X	X										X	X
33-60			X	X	X									X	X
33-61			X	X	X									X	
33-62			X	X										X	
33-63			X	X										X	X
33-72			X						X					X	X
33-73			X			X	X	X	X					X	X
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

DATA ELEMENTS
0-6 ARE REQUIRED
ON ALL ETR's.

0 - TRANSACTION SERIAL NUMBER
1 - MODULE SERIAL NUMBER
2 - STATUS-STAR CODE
3 - JULIAN DATE OF TRANSACTION
4 - MODULE TYPE/MODEL
5 - MODULE SERIES
6 - REPORTING CUSTODIAN (UIC)

Figure 7-8.—Engine/Propulsion System Required Data Elements—Continued.

STATUS STAR CODE	CONTROLLING CUSTODIAN UIC (7)	FLIGHT HOURS SINCE REWORK/OVHL (8)	FLIGHT HOURS SINCE NEW (9)	REPORTING CUSTODIAN RECD FM/TRF TO (10)	NEW CONTROLLING CUSTODIAN TRF TO (11)	AIRCRAFT MODEL (12)	AIRCRAFT BUNO (13)	PROPULSION SYSTEM POSITION NUMBER (14)	REMOVAL/DOWNGRADE/REPAIR CODE (15)	QECA CONFIGURATION (16)	BCM/AWM/INSPECTION CODE (17)	LOCATION CODE (18)	JOB CONTROL NUMBER (19)	REMARKS (20)	SPECIFIC REMARKS PG 5&6 ENCL 2 (21)
34-NA			X											X	
34-52			X											X	X
34-62			X	X										X	
34-63			X	X										X	
34-92											X			X	
34-93														X	
34-94														X	X
36-NA			X											X	
36-52			X											X	X
36-62			X	X										X	
36-63			X	X										X	X
36-92														X	
36-93														X	
36-94														X	X
37-NA														X	X
38-NA														X	
38-02			X											X	X
38-04			X										X	X	X

DATA ELEMENTS
0-6 ARE REQUIRED
ON ALL ETR's.

0 - TRANSACTION SERIAL NUMBER
1 - MODULE SERIAL NUMBER
2 - STATUS-STAR CODE
3 - JULIAN DATE OF TRANSACTION
4 - MODULE TYPE/MODEL
5 - MODULE SERIES
6 - REPORTING CUSTODIAN (UTC)

Figure 7-8.—Engine/Propulsion System Required Data Elements—Continued.

STATUS STAR CODE	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	CONTROLLING CUSTODIAN UIC	FLIGHT HOURS SINCE REWORK/OVHL	FLIGHT HOURS SINCE NEW	REPORTING CUSTODIAN RECD FM/TRF TO	NEW CONTROLLING CUSTODIAN TRF TO	AIRCRAFT MODEL	AIRCRAFT BUNO	PROPULSION SYSTEM POSITION NUMBER	REMOVAL/DOWNGRADE/REPAIR CODE	QECA CONFIGURATION	BCM/AWM/INSPECTION CODE	LOCATION CODE	JOB CONTROL NUMBER	REMARKS	SPECIFIC REMARKS PG 5&6 ENCL 2
40−NA			X											X	
40−60			X	X	X									X	X
40−61			X	X										X	
40−62			X	X										X	
40−63			X	X										X	X
41−NA			X											X	X
42−NA			X											X	X
46−60			X	X	X									X	
46−61			X	X										X	X
46−74			X			X	X	X						X	X
47−NA			X			X	X	X	X				X	X	
47−60			X	X	X	X	X	X	X					X	X
47−61			X	X	X	X	X	X						X	
48−60			X	X	X									X	X
48−61			X	X										X	
49−60			X	X	X									X	X
49−61			X	X										X	X
49−80			X	X										X	X
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

DATA ELEMENTS
0−6 ARE REQUIRED
ON ALL ETR's.

0 − TRANSACTION SERIAL NUMBER
1 − MODULE SERIAL NUMBER
2 − STATUS−STAR CODE
3 − JULIAN DATE OF TRANSACTION
4 − MODULE TYPE/MODEL
5 − MODULE SERIES
6 − REPORTING CUSTODIAN (UIC)

Figure 7-8.—Engine/Propulsion System Required Data Elements—Continued.

STATUS STAR CODE	CONTROLLING CUSTODIAN UIC	FLIGHT HOURS SINCE REWORK/OVHL	FLIGHT HOURS SINCE NEW	REPORTING CUSTODIAN RECD FM/TRF TO	NEW CONTROLLING CUSTODIAN TRF TO	AIRCRAFT MODEL	AIRCRAFT BUNO	PROPULSION SYSTEM POSITION NUMBER	REMOVAL/DOWNGRADE/REPAIR CODE	QECA CONFIGURATION	BCM/AWM/INSPECTION CODE	LOCATION CODE	JOB CONTROL NUMBER	REMARKS	SPECIFIC REMARKS PG 5&6 ENCL 2
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
49-81			X		X									X	X
49-82			X			X	X	X						X	X
49-83			X											X	X
49-84			X										X	X	X
49-85			X	X									X	X	X
49-86			X								X		X	X	X
49-87			X								X		X	X	X
49-88			X			X	X	X	X	X				X	X
49-89			X	X										X	X
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

DATA ELEMENTS
0-6 ARE REQUIRED
ON ALL ETR's.

0 – TRANSACTION SERIAL NUMBER
1 – MODULE SERIAL NUMBER
2 – STATUS-STAR CODE
3 – JULIAN DATE OF TRANSACTION
4 – MODULE TYPE/MODEL
5 – MODULE SERIES
6 – REPORTING CUSTODIAN (UIC)

Figure 7-8.—Engine/Propulsion System Required Data Elements—Continued.

STATUS STAR CODE	CONTROLLING CUSTODIAN UIC	FLIGHT HOURS SINCE REWORK/OVHL	FLIGHT HOURS SINCE NEW	REPORTING CUSTODIAN NEW	NEW CONTROLLING CUSTODIAN RECD FM/TRF TO	AIRCRAFT MODEL	AIRCRAFT BUNO	PROPULSION SYSTEM POSITION NUMBER	REMOVAL/DOWNGRADE/REPAIR CODE	QECA CONFIGURATION CODE	BCM/AWM/INSPECTION CODE	LOCATION CODE	JOB CONTROL NUMBER	REMARKS	SPECIFIC REMARKS PG 5&6 ENCL 2
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
13-NA			X				X							X	X
13-13			X	X			X							X	X
13-50			X	X			X							X	X
13-51			X	X			X							X	
21-50			X	X										X	X
21-52			X											X	X
21-60			X	X	X									X	X
21-61			X	X										X	
21-62			X	X										X	
21-63			X	X										X	X
21-74			X				X	X	X				X	X	X
21-91								X			X		X	X	X
21-95											X		X	X	X
21-96											X		X	X	
21-97									X		X		X	X	X
21-98									X		X		X	X	X
21-99			X		X					X		X		X	
23-NA			X				X							X	
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

DATA ELEMENTS
0-6 ARE REQUIRED
ON ALL ETR's.

0 – TRANSACTION SERIAL NUMBER
1 – MODULE SERIAL NUMBER
2 – STATUS-STAR CODE
3 – JULIAN DATE OF TRANSACTION
4 – MODULE TYPE/MODEL
5 – MODULE SERIES
6 – REPORTING CUSTODIAN (UIC)

Figure 7-9.—Module Required Data Elements.

Figure 7-9.—Module Required Data Elements—Continued.

STATUS STAR CODE	CONTROLLING CUSTODIAN UIC	FLIGHT HOURS SINCE REWORK/OVHL	FLIGHT HOURS SINCE NEW	REPORTING CUSTODIAN RECD FM/TRF TO	NEW CONTROLLING CUSTODIAN TRF TO	AIRCRAFT MODEL	AIRCRAFT BUNO	PROPULSION SYSTEM POSITION NUMBER	REMOVAL/DOWNGRADE	QECA CONFIGURATION/REPAIR CODE	BCM/AWM/INSPECTION CODE	LOCATION CODE	JOB CONTROL NUMBER	REMARKS	SPECIFIC REMARKS PG 5&6 ENCL 2
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
23-01			X											X	
23-50			X											X	
23-51			X	X										X	X
23-52			X											X	X
23-60			X	X										X	X
23-61			X	X										X	
23-62			X	X										X	
23-63			X	X										X	X
23-74			X				X		X					X	X
23-91			X						X		X			X	
23-96			X											X	
23-97			X						X		X			X	
23-98			X						X		X			X	
24-51			X											X	
24-52			X											X	X
24-60			X	X									X	X	X
24-61			X	X									X	X	
24-62			X	X									X	X	
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

DATA ELEMENTS
0-6 ARE REQUIRED
ON ALL ETR's.

0 — TRANSACTION SERIAL NUMBER
1 — MODULE SERIAL NUMBER
2 — STATUS-STAR CODE
3 — JULIAN DATE OF TRANSACTION
4 — MODULE TYPE/MODEL
5 — MODULE SERIES
6 — REPORTING CUSTODIAN (UIC)

STATUS STAR CODE	CONTROLLING CUSTODIAN UIC (7)	FLIGHT HOURS SINCE REWORK/OVHL (8)	FLIGHT HOURS SINCE NEW (9)	REPORTING CUSTODIAN RECD FM/TRF TO (10)	NEW CONTROLLING CUSTODIAN TRF TO (11)	AIRCRAFT MODEL (12)	AIRCRAFT BUNO (13)	PROPULSION SYSTEM POSITION NUMBER (14)	REMOVAL/DOWNGRADE/REPAIR CODE (15)	QECA CONFIGURATION CODE (16)	BCM/AWM/INSPECTION CODE (17)	LOCATION CODE (18)	JOB CONTROL NUMBER (19)	REMARKS (20)	SPECIFIC REMARKS PG 5&6 ENCL 2 (21)
24-63			X	X									X	X	
24-74			X				X		X				X	X	X
24-75			X				X		X				X	X	
24-77			X	X			X		X				X	X	X
24-78			X						X				X	X	
24-92											X		X	X	X
24-93													X	X	
24-94													X	X	X
24-99			X		X					X		X		X	X
31-51			X	X									X	X	X
31-60			X	X	X								X	X	X
31-62			X	X									X	X	
31-63			X	X									X	X	X
31-72			X					X	X		X		X	X	X
31-74			X				X		X				X	X	X
31-99			X		X					X		X	X	X	
31-60			X	X	X									X	X
31-51			X	X										X	X

DATA ELEMENTS
0-6 ARE REQUIRED
ON ALL ETR's.

0 — TRANSACTION SERIAL NUMBER
1 — MODULE SERIAL NUMBER
2 — STATUS-STAR CODE
3 — JULIAN DATE OF TRANSACTION
4 — MODULE TYPE/MODEL
5 — MODULE SERIES
6 — REPORTING CUSTODIAN (UIC)

Figure 7-9.—Module Required Data Elements—Continued.

STATUS STAR CODE	CONTROLLING CUSTODIAN UIC	FLIGHT HOURS SINCE REWORK/OVHL	FLIGHT HOURS SINCE NEW	REPORTING CUSTODIAN RECD FM/TRF TO	NEW CONTROLLING CUSTODIAN TRF TO	AIRCRAFT MODEL	AIRCRAFT BUNO	PROPULSION SYSTEM POSITION NUMBER	REMOVAL/DOWNGRADE/REPAIR CODE	QECA CONFIGURATION	BCM/AWM/INSPECTION CODE	LOCATION CODE	JOB CONTROL NUMBER	REMARKS	SPECIFIC REMARKS PG 5&6 ENCL 2
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
33-60			X	X	X									X	X
33-61			X	X	X									X	
33-62			X	X										X	
33-63			X	X										X	X
33-72			X						X					X	X
33-73			X			X	X	X	X					X	X
33-78			X						X					X	X
34-NA			X											X	
34-52			X											X	
34-62			X	X										X	
34-63			X	X										X	X
34-92											X			X	
34-93														X	
34-94														X	X
36-NA			X											X	
36-52			X											X	X
36-62			X	X										X	
36-63			X	X										X	X
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

DATA ELEMENTS
0-6 ARE REQUIRED
ON ALL ETR's.

0 - TRANSACTION SERIAL NUMBER
1 - MODULE SERIAL NUMBER
2 - STATUS-STAR CODE
3 - JULIAN DATE OF TRANSACTION
4 - MODULE TYPE/MODEL
5 - MODULE SERIES
6 - REPORTING CUSTODIAN (UIC)

Figure 7-9.—Module Required Data Elements—Continued.

STATUS STAR CODE	CONTROLLING CUSTODIAN UIC	FLIGHT HOURS SINCE REWORK/OVHL	FLIGHT HOURS SINCE NEW	REPORTING CUSTODIAN RECD FM/TRF TO	NEW CONTROLLING CUSTODIAN TRF TO	AIRCRAFT MODEL	AIRCRAFT BUNO	PROPULSION SYSTEM POSITION NUMBER	REMOVAL/DOWNGRADE/REPAIR CODE	QECA CONFIGURATION CODE	BCM/AWM/INSPECTION CODE	LOCATION CODE	JOB CONTROL NUMBER	REMARKS	SPECIFIC REMARKS PG 5&6 ENCL 2
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
36−92														X	
36−93														X	
36−94														X	X
37−NA														X	
38−NA														X	
38−02			X				X							X	X
38−04			X				X					X		X	X
41−NA			X											X	X
42−NA			X											X	X
46−60			X	X	X									X	X
46−61			X	X										X	
46−74			X			X	X	X	X					X	X
48−60			X	X	X									X	X
48−61			X	X	X									X	
49−60			X	X	X									X	X
49−61			X	X	X									X	
49−80			X	X										X	X
49−81			X	X	X									X	X
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

DATA ELEMENTS
0-6 ARE REQUIRED
ON ALL ETR's.

0 — TRANSACTION SERIAL NUMBER
1 — MODULE SERIAL NUMBER
2 — STATUS-STAR CODE
3 — JULIAN DATE OF TRANSACTION
4 — MODULE TYPE/MODEL
5 — MODULE SERIES
6 — REPORTING CUSTODIAN (UIC)

Figure 7-9.—Module Required Data Elements—Continued.

STATUS STAR CODE	CONTROLLING CUSTODIAN UIC	FLIGHT HOURS SINCE REWORK/OVHL	FLIGHT HOURS SINCE NEW	REPORTING CUSTODIAN RECD FM/TRF TO	NEW CONTROLLING CUSTODIAN TRF TO	AIRCRAFT MODEL	AIRCRAFT BUNO	PROPULSION SYSTEM POSITION NUMBER	REMOVAL/DOWNGRADE/REPAIR CODE	QECA CONFIGURATION	BCM/AWM/INSPECTION CODE	LOCATION CODE	JOB CONTROL NUMBER	REMARKS	SPECIFIC REMARKS PG 5&6 ENCL 2
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
49-82			X											X	X
49-83			X											X	X
49-84			X											X	X
49-85			X											X	X
49-86			X											X	X
49-87			X											X	X
49-88			X											X	X
49-89			X											X	X
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

DATA ELEMENTS
0-6 ARE REQUIRED
ON ALL ETR's.

0 - TRANSACTION SERIAL NUMBER
1 - MODULE SERIAL NUMBER
2 - STATUS-STAR CODE
3 - JULIAN DATE OF TRANSACTION
4 - MODULE TYPE/MODEL
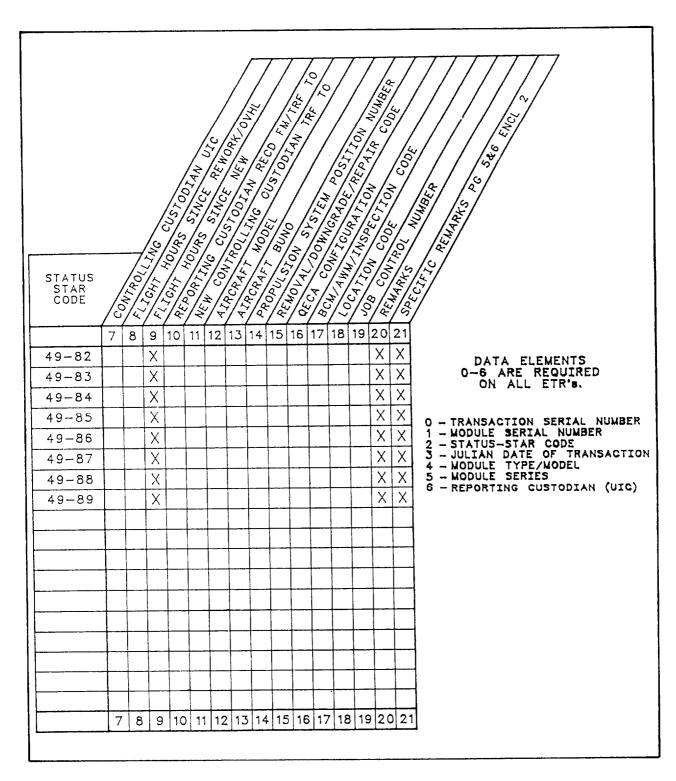5 - MODULE SERIES
6 - REPORTING CUSTODIAN (UIC)

Figure 7-9.—Module Required Data Elements—Continued.

Figure 7-10 shows an example of a message-type ETR prepared for transmission reporting two transactions. This example is in the format used by COMNAVAIRLANT/COMNAVAIRPAC reporting custodians. Some activities will submit ETRs using on-line computer terminals. The input will consist of specific update data and applicable data elements entered via the cathode-ray tube (CRT) formats, which are provided in the *Users*

Guide for Navy Aircraft Engine Management System.

ETRs submitted by reporting custodians are numbered sequentially throughout the calendar year (CY) beginning with report number 1 for the first report submitted on or after 1 January of the CY. Each successive report increases by one number until 31 December, after which ETR numbering restarts with report number 1 for the

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NAVAIRINST 13700.15

FORMAT FOR CNAL/CNAP REPORTING CUSTODIANS

1. Station is reporting receipt of an unserviceable engine from a reporting custodian assigned to a different controlling custodian. Note the use of star codes "60" and "61" for transfer and receipt between two different two different controlling custodians (in this case, COMNAVAIRLANT and CNATRA). Also note that a station will not use a deployed UIC, data element 17.

FM   NAS NORFOLK VA

TO   COMNAVAIRLANT NORFOLK VA

INFO   CNATRA CORPUS CHRISTI TX

        COMNAVAIRESFOR NEW ORLEANS LA

        NAVSUPO NAS NORFOLK VA

        NAS MEMPHIS TN

UNCLAS //N13700//

SUBJ: AIRCRAFT ENGINE TRANSACTION REPORT (NAVAIR 13700-9)

A. NAVAIRINST 13700.15

1. NAS NORFOLK OMD ETR 4-86. LAST ETR 3-86 DTG 131826Z JAN 86

020/0031661/31-61/86076/R2800/52W/00188/08298//00689

021/0032001/21-60/86076/R2800/52W/00188/06284/00689/63110

2. REQUIRED REMARKS:

020- RCVD FM NAS MEMPHIS (CNATRA) TRANSIT ACFT

021- TRF TO NAS MEMPHIS (CNATRA) ON STATION

Figure 7-10.—ETR Message.

CY. Example: 1-91, 2-91, 3-91, etc. On the first ETR of each year, report the last CY ETR, Example: 1-91 LAST CY ETR 154-90 DTG 312200Z DEC 90. The number of reports that can be submitted in any given CY are limitless.

In addition to the number assigned to the ETR, each transaction reported (fig. 7-10) must be serialized. For example, if the first ETR submitted by a reporting custodian contains four transactions, the first transaction would be 001, the second transaction 002, and the third transaction 003, etc. These ETR report numbers are reported in data element field 0 on all transaction reports. Transaction serial numbers commence with 001 for the first transaction reported for the CY, and will increase sequentially for each transaction reported throughout the CY to a maximum of 999. If an activity exceeds 999 transactions within any given CY, numbering will begin again with 001.

Each horizontal line (where possible) in a message-type ETR details one engine transaction. They are submitted in this format to facilitate the direct key entry to an on-line data processing system used by controlling custodians to transmit engine data to the Naval Air Systems Command Headquarters. The data in each column should be aligned with a straight margin on the left. An ETR should contain only information directly concerned with engine management. OPNAV X-RAY reports and ETR reports WILL NOT be submitted as a combined report.

Reporting custodians may use different reporting formats, but the data reported under the various fields is practically identical. If you understand the use of status codes, STAR codes, and data elements, you should have little difficulty preparing ETRs, no matter where you are assigned.

Upon determination that an error has been made in the submission of an ETR, a correction report should be sent immediately. Correction reports are normally submitted as a two-line report for each correction being submitted. These reports are prepared in the same basic format as regular reports. Correction reports submitted independently should refer only to data reported in the original report and should include the same action/information addressees as the original. Correction reports submitted at the direction of higher authority should include the reference directing the resubmission.

Correction reports are not assigned the next sequential ETR number since they are correcting previously submitted ETRs. The first line of the message text repeats the information previously reported in error, with the exception of adding the word *delete* at the end of the transaction line. The second line of the report contains the corrected information and the word *correct* at the end of the transaction line. For example, if a unit had previously submitted an ETR incorrectly reporting the Bureau Number (BUNO) of an aircraft, the text of the correction ETR would be as shown in figure 7-11. The reporting custodian identifies the report being corrected by date-time group, and ETR number/date. The complete erroneous ETR line will appear on the correction message, identified by the transaction serial/line number of the original transaction.

Correction reports should not be considered as a reflection on the reporting capabilities of an activity. These reports are submitted for the singular purpose of correcting the controlling custodian's engine file.

End-of-Quarter (EOQ) Report of Flying Hours for Installed Engines

Engine reporting custodians submit an EOQ report of installed engines. This report includes data up to 2400 on the last day of the quarter. The type of engine reported determines the reporting quarters. All type M, O, R, and T (except T56) engines are reported as of 2400 on 31 January, 30 April, 31 July, and 31 October. All type T56 turboshaft engines are reported as of 2400 on 28/29 February, 31 May, 31 August, and 30 November. All turbojet/turbofan engines, types F, J, and TF, are reported 31 March, 30 June, 30 September, and 31 December.

This report includes all engines in an installed status regardless of location. Therefore, engines in the reporting custodian's aircraft that are in pools, SDLM, and commercial facilities must be included. It is the responsibility of the reporting custodian to contact activities having physical custody of the aircraft engines to determine the correct number of hours to be reported.

The EOQ report is to be submitted via naval message not later than 2400 hours on the third working day following the end of the calendar month in which the engine is to be reported; this will allow for data entry into the AEMS data base by the fifth working day. Reporting custodians with access to on-line AEMS terminals will enter reports not later than 5 working days following the end of the reporting month. An example of

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FM      USS KITTY HAWK

TO      COMNAVAIRPAC SAN DIEGO CA

        COMFAIRWESTPAC ATSUGI JA

INFO    COMASWWINGPAC SAN DIEGO CA

        COMFAIRWESTPAC DET CUBI PT RP

        NAS CUBI PT RP

UNCLAS //N13700//

SUBJ: ENGINE TRANSACTION REPORT CORRECTION (NAVAIR
      13700-9)

A. USS KITTY HAWK 031400Z FEB 87

B. NAVAIRINST 13700.15

1. CORRECT REF A USS KITTY HAWK ETR 12-83 IAW REF B AS
FOLLOWS:

044/0516508/31-74/87034/R1820/82B/03363/00098/05799/C1A/146042/
1/2N/DELETE

044/0516508/31-74/87034/R1820/82B/03363/00098/05799/C1A/146052/
1/2N/CORRECT

2. REQUIRED REMARKS:

044 CORRECT BUNO TO 146052 VICE 146042
```

Figure 7-11.—Correction ETR.

a message EOQ is shown in figure 7-12. Notice that some of the data elements are not repeated, such as (4) and (5) because the information is the same for each engine. All engines should be listed by aircraft and in engine position number order. Engines that have been previously reported in status-star codes 11-60 or 11-63 WILL NOT be included on the EOQ report.

Amplifying remarks on the EOQ report can be found in the latest edition of NAVAIRINST 13700.15 and the appropriate controlling custodian's instruction concerning AEMS.

CHAPTER REVIEW QUESTIONS

Q1. What log is used to maintain records on aeronautical equipment?

Q2. What system is designed to provide data on the inventory management and reporting of engines?

Q3. What instruction should you refer to for Aeronautical Equipment Service Record (AESR) construction and form sequence?

Q4. Who initiates the AESR?

Q5. When is the AESR maintained concurrently with or as part of the aircraft logbook?

Q6. Where is a copy of the most recent engine test record maintained?

Q7. When must data be entered on the Equipment Operating Record (EOR)?

FM   PATRON 17

TO   COMNAVAIRPAC

INFO   COMPATWINGSPAC

UNCLAS //N13700//

SUBJ: END-OF-QUARTER Report (NAVAIR 13700-9)

A: NAVAIRINST 13700.15

1. EOQ REPORT STATUS-STAR CODE 11-90, EOQ DATE 86151 (PREPARED BY ADCS JOHN DOE, AUTOVON 234-1570), UIC 09043, ACFT MODEL: P3C, TOTAL 3. P3C BUNO 160769 HAS ONE BARE FIREWALL (NUMBER 3 POSITION). P3C BUNO 160782 TRANSFERRED TO NAVAVNDEPOT ALAMEDA FOR REWORK/REPAIR.

2. EOQ REPORT AS FOLLOWS:

(1)	(4)	(5)	(8)	(11)	(12)	(13)
0TH9478	T56A	14A	11437	P3C	160760	1
0TH5934			12174			2
0TH5982			09604			3
0TH6106			11506			4
1TH0466			02999		160788	1
0TH9479			03539			2
0TH8197			06077			3
0TH4979			03539			4
0TH7476			05636		160769	1
0TH3935			06190			2
1TH0480			03346			4

3. REMARKS: PROPULSION SYSTEM SERIAL NUMBER 0TH7476 TSN WAS ERRONEOUSLY REPORTED LAST EOQ. CORRECTION SUBMITTED PATRON 17 241700Z MAY 86.

Figure 7-12.—EOQ Report.

Q8. Are all engine inspections maintained on one inspection page?

Q9. A minimum of how many years data must be maintained at all times on the Conditional Inspection Page?

Q10. All technical directives are logged in numerical sequence, except on pages titled what?

Q11. On what form are Navy Oil Analysis Program (NOAP) entries made?

Q12. What type of data is maintained on the Inventory Record Form?

Q13. What instruction establishes the policy and responsibilities for the planned removal/ replacement of selected assemblies designated to use the Assembly Service Record (ASR)?

Q14. What record is used for all modular engines?

Q15. What system tracks the operating time/ cycle counts of selected engine components?

Q16. What instruction prescribes reporting procedures for the Navy Aircraft Engine Management System (AEMS)?

Q17. What does a status code describe?

Q18. What code amplifies or qualifies the status code?

Q19. What record is designed to provide a standardized record for local management of aircraft engines?

Q20. When must Engine Transaction Reports (ETRs) be submitted?

Q21. How are ETRs numbered?

Q22. When must EOQ reports be entered by reporting custodians with access to on-line AEMS terminals?